Wireless E9-1-1 Driving Towards Phase II

Presented By:

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State Of California

9-1-1 Emergency Communications Office

CAL NENA 2003

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Agenda

- 9-1-1 in California
- "The Wireless Problem"
- "The Solution"
- Wireless E9-1-1 Defined
- Implementation Plan/Status
- Synopsis/Q & A

California 9-1-1 Demographics

- 24 CHP Comm. Centers
 - Most all using 7-digit PSTN with "Caller ID"
- Approx. 475 Local Wire-line PSAPS
 - All Enhanced 9-1-1
- Approx. 30 Wireless Carriers (6 Major)
 - ATT Wireless, Cingular, Nextel, Sprint PCS, T-Mobile, & Verizon Wireless
- 2 Wire-line E9-1-1 Providers
 - SBC & Verizon

"The Problem" (in California)

- Approx. 7 million wireless 9-1-1 calls are made annually and many wait or go unanswered!
 - 24 CHP centers often inundated with 9-1-1 calls.
 - "Caller ID only" and no ALI in CHP call centers.
 - "Butt calls," estimated at 50%.
 - Many calls per incident (freeways)

The Solution (for California)

- Provide more call takers to answer wireless 9-1-1 calls during all hours of the day.
 - Best accomplished by sharing call loads amongst all primary PSAPs in the State.
 - CHP-LA during peak times staff approximately 10 call takers
 - Other Primary PSAPs in LA County during peak times staff approximately 300 call takers.

"Wireless E9-1-1" What Is It?

• Wire-line E9-1-1

- ANI + ALI + Selective Routing
- Other Features Too telltales, selective transfer, et.al.

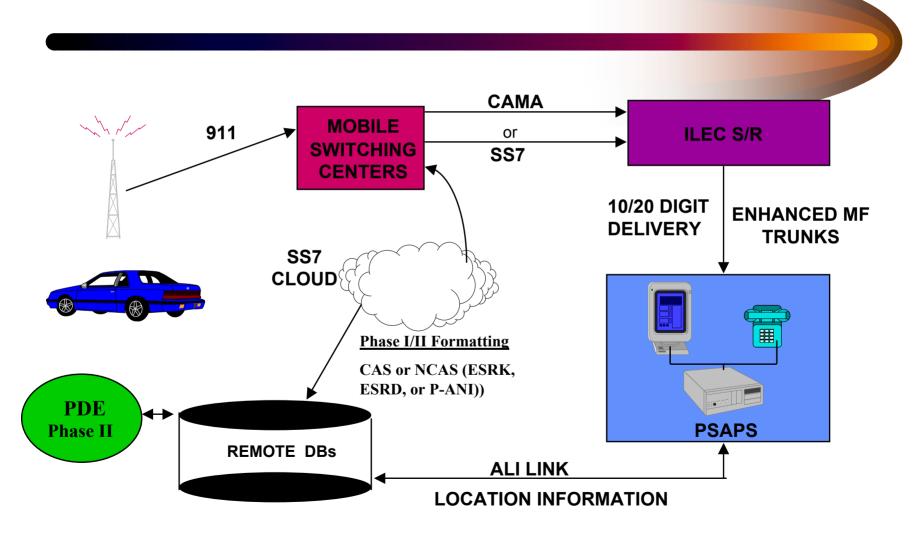
Wireless E9-1-1 Phase I

 Delivers Wireless Call Record with Callback Phone Number (ANI), Cell Sector (ALI) and other stuff.

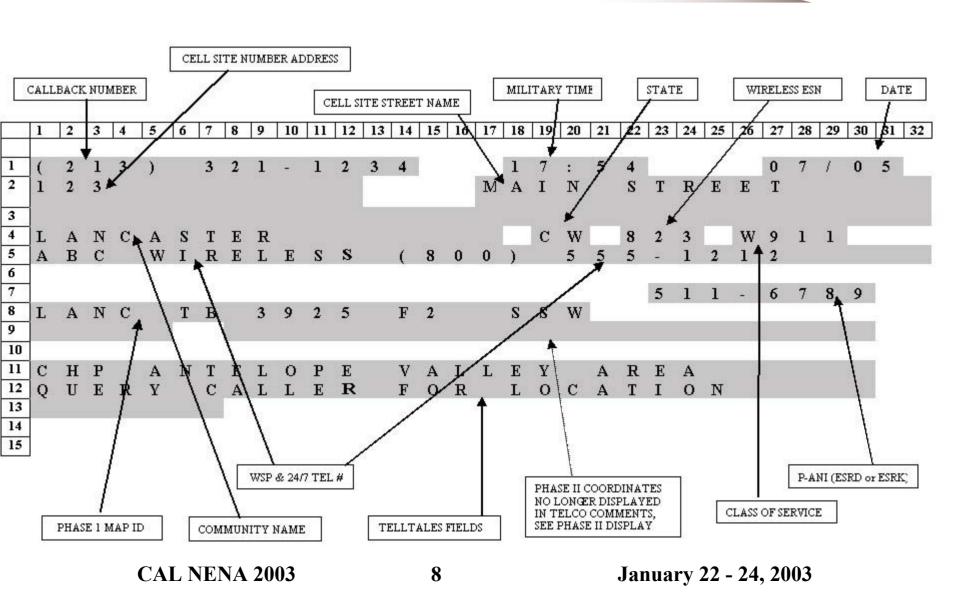
• Wireless E9-1-1 Phase II

 Adds Precise Location Information (in form of lat./long. coordinate) and sometimes uncertainty and confidence.

Wireless E9-1-1 Simple Network Diagram

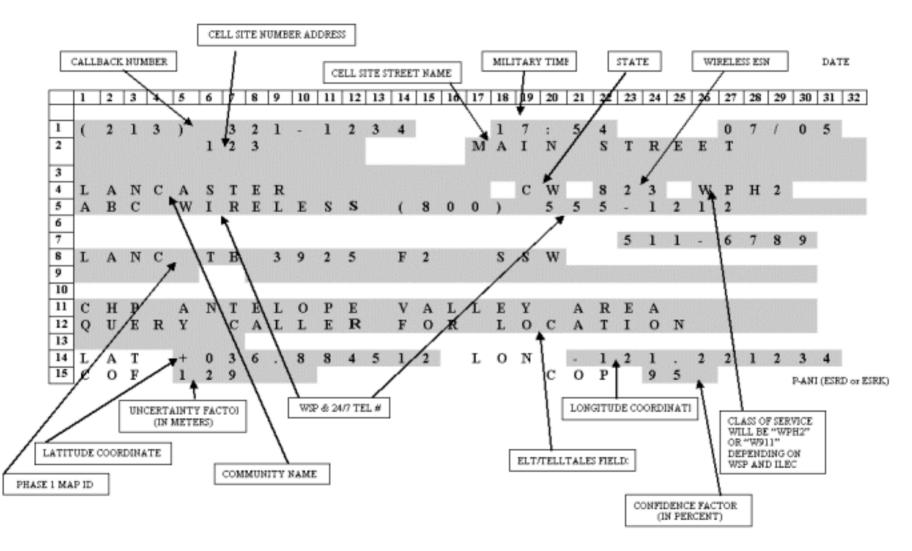


Wireless ALI Record (Using Current ALI Format)



Wireless ALI Record

(Using New ALI Format with Phase II Fields)



Wireless E9-1-1 Readiness

CHP Communications Centers

Upgrade all CHP PSAPs (except LA CHP) to E9-1-1 with 10/20-digit capability.

Local PSAPs

- Most PSAPs (outside of So. Calif.) will require upgrade to 10/20-digit capability.
- New ALI Format may impact 9-1-1 CPE and/or CAD

ILEC Networks/Databases

- Tandem to Tandem interconnectivity in some regions.
- Upgrades to Databases for Phase II.
- GIS Recommended for all primary wireless PSAPs.

Wireless E9-1-1 Benefits

- Wireless E9-1-1 Load Sharing
 - Call taker pool will be increased by at least 10 times.
- Wireless Call Record = Faster Call Processing
 - CHP call takers Will process transfers faster.
 - Information is there if needed.
- Phase II Data
 - Receipt of lat./long. (a.k.a. X/Y) coordinates allow for GIS (Geographical Information System) map displays at PSAPs.
- In the Future, X/Y-Based Routing
 - Delivery of Phase II data <u>quickly</u> by WSPs will allow wireless calls to be routed to the appropriate PSAP based on precise location.

Wireless E9-1-1 Implementation Plan

- Three to Five Year Plan
- "CHP-Centric" Regional Plan
 - Regions based on jurisdiction of CHP Communications Centers
 - State of California to <u>proactively</u> promote PSAP readiness (both CHP and local PSAPs), when needed.
- Approved 9-1-1 budget includes wireless E9-1-1 funding for (fiscal years 2001/02, 2002/3, & 2003/04) and beyond.

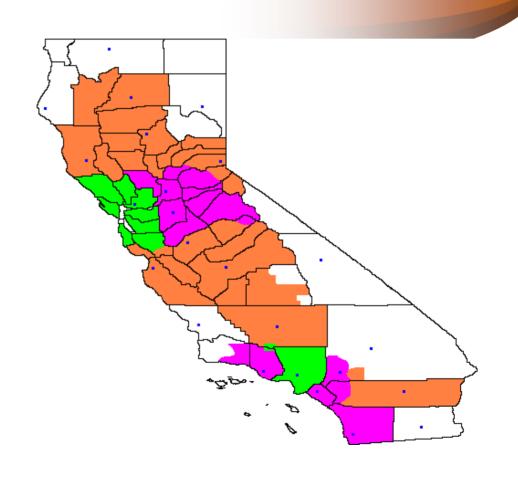
Statewide View

Green – To start FY 2002/2003

Pink –To start FY 2003/2004

Orange – To start FY 2004/2005

White – To start FY 2005/2006



Wireless E9-1-1 Plan - Challenges

- Communicating with PSAPs/Industry
- Constant Change
- Budgetary Considerations
- Wireless E9-1-1 Policies/Procedures
- Network Strategy
- PSAP Readiness
- GIS (Electronic Mapping)

Local PSAP Checklist

- Increase your Wireless E9-1-1 Awareness
 - Review State website "Wireless Project"
 - http://www.td.dgs.ca.gov/Services/911/default.htm
 - Attend W E9-1-1 meetings/conference calls.
- Contact State 9-1-1 Consultant/Representative to discuss/help determine:
 - Possible CAD and 9-1-1 CPE Impacts
 - Likely impact of wireless 9-1-1 calls
- Start evaluating GIS (mapping systems).

Conclusions

- Wireless E9-1-1 is not a panacea.
 - To solve California's wireless 9-1-1 issues we must continue to consider all potential complementary solutions such as:
 - Changes to existing law (CPUC 2892, section c)
 - Variable Staffing Methods
 - Other Network Models (eg. Voice and Data over IP)
 - Intelligent Inter-PSAP Load Sharing Techniques
 - Public Education Initiatives



Open Discussion

- Do you have any questions? If so, please ask.
- Email: john.marengo@dgs.ca.gov
- State 9-1-1 Web Site:
 - http://www.td.dgs.ca.gov/Services/911/default.htm
- Thank you.

State of California 9-1-1 Emergency Communications Office

The State of California, in concert with all public safety agencies in the State, is dedicated to providing its citizens with the best emergency services possible. The goal of the State of California 9-1-1 Emergency Communications Office is to enable public safety answering points (PSAPs) to provide expedient telephone access to emergency services for all 9-1-1 callers. The 9-1-1 telephone number is a significant step in this direction. The Department of General Services, Telecommunications Division, 9-1-1 Emergency Communications Office, is committed to assisting PSAPs in the administration and funding of this lifesaving resource in their communities.

State of California 9-1-1 Service Information:

Master Purchase Agreement DGS-0026-(01-10)

State of California Wireless E9-1-1 Project

California Emergency Services Advisory Board (CESAB)

Memos to all PSAP Managers and 9-1-1 County Coordinators

- April 18, 2000 Memo, 9-1-1 Program Office Policies and Procedures
- December 28, 2000 Memo, AB 1263, Wireless 9-1-1
- May 4, 2001 Memo ETS 01-01, Interim CPE Funding Procedures
- June 19, 2001 Memo ETS 01-02, Emergency 7-Digit Telephone Lines
- December 21, 2001 Memo ETS 01-03, State 9-1-1 Program Funding

California 9-1-1 Emergency Communications Office

- 9-1-1 Staff Organization List
- 9-1-1 Operations Manual
- 9-1-1 History

California Chapter of the National Emergency Number Association (CalNENA)



January 2002 CalNENA Conference and Trade Show Presentations

- Wireless E9-1-1, The California Plan
- Master Purchase Agreement, Chapter III Funding Policy and GIS
- Chapter VIII, County Coordinator Responsibilities

National Emergency Number Association (NENA)



Association of Public-Safety Communications Officials International, Inc. (APCO)

- APCO International, Home Page
- Northern California Chapter of APCO Home Page
- Southern California Chapter of APCO Home Page

State of California 9-1-1 and N-1-1 Legislation Information

- 3-1-1 Report to the Governor and Legislature, February 23, 2001
- AB 1263 Thompson, 9-1-1 Wireless
- AB 1477 Veto Message (10/2001)

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